

9. (Currently amended). A piston support, as set forth in claim 1, wherein said means for braking comprises an axially extending compression spring in said recess pressing said spherically shaped braking element in the direction toward the leading end of said piston (8).

REMARKS

Claims 1, 2, 5, 8 and 9 are in the application.

Claim 3 has been canceled because in claim 1 the braking element (23) has been amended as a “spherically shaped” braking element.

Claim 4 previously characterized as withdrawn has been changed to canceled.

Claims 6 and 7 previously characterized as withdrawn have been changed to canceled.

Claim 8 has been amended for a second time.

Claim 9 has been amended for a second time to more completely define the compression spring and to avoid the rejection under 35 USC §112.

A telephone interview was conducted with the Examiner on Wednesday, July 28, 2004 to propose the inclusion of “an inelastic” base in claim 1 describing the base (22).

The Examiner held there is no basis in the specification for referring to the base (22) of the recess (19) as inelastic.

The only mention of the base in the specification is at page 5 where the base region area could “be designed yieldingly elastic or resilient”.

The base region is illustrated, however, as inelastic so that the braking element 23 rolls on the base 22.

It is respectfully submitted that the description and illustration of the base 22 affords an adequate basis for use of “inelastic” as describing the surface of the base.

The claims, as previously presented, were rejected under 35 U.S.C. §103 as unpatentable over Termet in combination with Ehmig et al. The discussion of Termet and Ehmig et al. in the previous amendment of December 12, 2003 is incorporated herein by reference.

TERMET 3,871,565

The Termet reference is directed to a cartridge-fired apparatus which can be adapted to the nature of the work to be carried out by changing the piston-ram. Figs. 1, 2 and 3 show different piston-rams usable in the cartridge-fired apparatus. When a cartridge is fired a stop forming ring 15 stops the shoulder 22.

Compared to the applicants' claimed arrangement in Termet there is no spherically shaped braking element mounted in an inelastic recess where the radially outer base of the recess is sloped at an angle relative to the axis of the piston. There is no means biasing the braking element. There is no variation in the pressure applied by the braking element. All that Termet suggests is a stop forming ring which does not disclose or suggest the elements set forth in applicants' claim 1. The question remains what does Ehmig et al. add to Termet.

EHMIG et al., 4,941,391

Ehmig et al. discloses a driving piston braking means with braking balls 17 biased by a cylindrical spring 22 in recesses 16. The recesses contain an annular spring 18 in the form of a spring ring. The base of the recess is formed by an inner surface of the enlarged section of the barrel 12. The inner surface of the spring 18 has a support surface 18a inclined at an acute angle relative to the piston axis. There is no inelastic base surface contacted by the braking balls. The braking balls contact the spring support surface 18a. The braking balls or elements do not move along an inelastic surface, rather against the elastic spring surface 18a. There is no inclined inelastic surface in Ehmig et al. contacted by the braking balls or elements.

It is respectfully submitted that the combination of Termet and Ehmig et al. fails to disclose or suggest the features of applicants' claim 1. There is no inclined inelastic base surface contacted by the braking element so that the braking element moves out of contact with the piston when the piston is driven. The references may show some features of the applicants' invention, however, there is no suggestion to be gained from them that would provide any basis for rejecting the applicants' claims. Therefore, a favorable action on the claims is solicited.

Respectfully submitted,

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I hereby certify that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on August 3, 2004.

Signature: Wm. H. Lester